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09/817,251	03/27/2001	Hisao Hiramatsu	Q63803	8044

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EXAMINER	
SOOHOO, TONY GLEN	
ART UNIT	**PAPER NUMBER**
1723	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/817,251	HIRAMATSU ET AL.	
	Examiner	Art Unit	
	Tony G. Soohoo	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,11-17,19 and 21-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,11-17,19 and 21-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Applicant is advised that should claim 24 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The common wording is "

> 24. (previously presented): **The method according to claim 1, wherein the sucked position is near the center of the container.**
>
> 25. (previously presented): **The method according to claim 1, wherein the sucked position is near the center of the container.**

"

Claim interpretation

3. Claims 19 and 21 point out the use of the method in an apparatus. it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961). According the mere intention that the method to be used by a particular device does not provide any patentable manipulative step to the claimed method.

19. (previously presented): The method according to claim 1, which is used in an inspection apparatus.

Claim 20. (canceled).

21. (previously presented): The method according to claim 11, which is used in an inspection apparatus.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3-5, 7, 11, 13-15, 17, 19, and 21-25 are rejected under 35 U.S.C. 103(a) as obvious over JP 62-184357 in view of Knobel 5482863 (both previously cited).

The JP 62-184357 (JP '357) reference discloses as seen in figures 1 (i) through IV), as described in the supplied translation an automatic controlled repeated sucking and discharge of fluid on to the surface of the remaining liquid in a container to provide stirring. It is noted that the nozzle initially is empty thereby having air in the nozzle before the sucking step.

The translation states (emphasis by examiner added in BOLD):

First, the liquid A is preliminarily present on the bottom of the container (4) in Figure 1 (i). The pipette (1), which has already suctioned the liquid B, becomes inserted into the container (4) in this state, and the liquid B is then extruded. The liquid A and liquid B therefore become mutually mixed, although a sufficient agitation state has yet to arise.

In Figure 1 (ii), the distal end of **the pipet becomes lowered and then immersed underneath the liquid surface of the liquid mixture A + B. A certain volume (e.g., a half of total volume) is then suctioned.**

Next, in Figure 1 (iii), the distal end of **the pipet becomes elevated in a state where the liquid mixture remains suctioned and then positioned above the liquid surface of the liquid mixture stocked within the container. The liquid within the pipet becomes extruded in this state.**

In Figure 1 (iv), furthermore, the state of Figure 1 (ii) becomes restored at the distal end of the pipet. In other words, **the pipet distal end is lowered underneath the liquid surface in preparation for suction.**

The pipet descension & suction and pipet ascension & extrusion actions discussed above are **repeated within a single container**.

F. Functions

The liquid within the container becomes sufficiently agitated physically as a result of the repetitions, via an interface provided by the liquid surface of the liquid within said container, of pipet descension & suction and pipet ascension & extrusion actions. The agitation is predicated on liquid countercurrents arising as a result of suction and on **the collision of the extruded liquid with the liquid plane, etc.**

The JP '357 reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of and additional step of whereby, after the JP'357's step of raising the pipette when positioned above the liquid surface of container, the additional step of moving the pipette at horizontally different position from the sucking position is made, prior to the JP'357's step of the extruding the pipette's contents back into the surface of liquid in the container.

In other words, the only difference is that one moves the pipette to a different position just before ejecting the contents of the pipette.

The reference to Knobel 5482863 (Knobel '863) teaches that it is desirable to discharge a liquid into a container at two different positions thereby creating two vortex flows, column 3, lines 47-64, so as to enable the solid phase to be suspended exclusively by injection of reagent, thus avoiding the need for a subsequent shaking operation.

Knobel states (emphasis by examiner added in BOLD)::

12) The inventive process is suitable for other applications in addition to

suspending particles deposited at diametrically opposite regions on the wall, relative to the central longitudinal axis. After a portion of the predetermined volume of reagent liquid has been pipetted into the reaction vessel in a first position, the pipetting needle can be rotated to any desired second position at a distance from the central longitudinal axis of the reaction vessel, where the deposited particles are suspended by adding the remaining part-volume of reagent liquid. In addition, a solution already in the reaction vessel can be efficiently mixed with other solutions.

(13) A main advantage of the present invention is that **addition of reagent liquid at two different positions in a reaction vessel results in a flow therein, enabling the solid phase to be suspended exclusively by injection of reagent, thus avoiding the need for a subsequent shaking operation**. In analytical equipment, the inventive device can produce an optimum suspension of particles during the addition of reagent, simply by choosing a suitable program for actuating the pipetting needle, so that a maximum number of samples can be processed per unit time.

And column 4 lines 32-40:

(20) FIG. 3 shows the pipetting needle 18 in a first position at a distance e from the central longitudinal axis 22, where a part of the predetermined volume of reagent liquid 21 is injected. The resulting vortex 24 is diagrammatically shown.

(21) FIG. 4 shows **the pipetting needle 18 in the second position at a distance e from the central longitudinal axis 22, where the rest of the predetermined volume of reagent liquid 21 is injected.** The resulting vortex 25 is diagrammatically indicated, showing the reverse direction of rotation.

Also, on column 4, lines 52-64, the reference teaches that the distance of the position whereby the pipet is moved for dispensing may be readily varied:

(25) The invention has been described in terms of its preferred embodiments. However, upon reading the present specification various alternative embodiments will become obvious to those skilled in the art. For example, **travel distance (e) can be readily varied**, as can the type of pipetting device, type of reaction container, processing station, etc.

In view of the teaching of the Knobel '863 reference that it is desirable to inject the fluid from the pipette from two different positions thereby creating advantageous vortex action thus avoiding the need for a subsequent shaking operation, it is deemed that it would have been obvious to one of ordinary skill in the art to provide for the method taught by the JP '357 reference with an additional step of moving the pipette to a different location prior to ejecting the fluid from the pipette so that addition vortex flows are produced in the container in order to more effectively mixing and reduce the need for shaking the container for adequate mixing.

With regards to the material in which the method of stirring is worked upon, the claim is directed to a method for stirring a liquid. Object "for.. a liquid" deemed as an environment of the stirring method. Is It is noted that the manipulation of fluid as presented by the JP '357 in view of Knobel '863 is fully capable of acting upon any liquid including blood.

Whereby the type of fluid used does not perfect or affect the stirring manipulation in a positive sense of fluid dynamics, little patentable distinction is afforded to the use of blood in perfection of the stirring. Nonetheless it is deemed that it would have been

obvious to one of ordinary skill in the art to use the method of JP '357 as modified whereby the processing of blood by a pipette is old and well known.

With regards to differing positions of the sucking and dispensing positions of claims 22-27 whereby Knobel '863 reference is cited as evidence of the desire and the advantageous feature to move the pipette nozzle to different positions during suction/dispensing, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the positions of suction and discharge positions

With regards to claims 19 and 21, the recitation of the use of the method in an inspection apparatus does not point out a positive manipulative step in the perfection of stirring a fluid thereby has been afforded little patentable distinction, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961)

With regards to claims to 22-27, the prior art as applied discloses all of the recited subject matter as defined within the scope of the claims with the exception of discharging the liquid a position limited in a horizontally external position to the sucked position (claims 22-23) or sucked near the center of the container, or sucked at a deepest position.

Knobel reference is cited as evidence that one may move a nozzle to various positions for sucking or dispensing a pipette for mixing. Without undue experimentation, it is deemed that it would have been obvious to one of ordinary skill in the art to modify, vary, or limit the positions of the sucking and discharge points any

appropriate position in the container so that mixing is optimized by a more effective suction flow or vortex flow within the container, and provide an automated step to reproduce such a repetitive process by a machine.

6. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-184357 in view of Knobel 5482863 as applied to claims 1, 11 respectively above, and further in view of JP 64-27626 (all cited previously).

JP 62-184357 in view of Knobel 5482863 discloses all of the recited subject matter as defined within the scope of the claims with the exception of the step of discharging air. It is noted that the nozzle initially is empty thereby having air in the nozzle before the sucking step.

The JP 64-27626 (JP '626) reference teaches that air maybe sucked into a discharge nozzle and discharged with the sample into the container causing air bubbles to further mix the fluid component.

Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to further provide the JP '357 as modified above, an additional step of sucking in air into the pipette so that air may also be discharged with the fluid components to provide bubbles to cause further mixing and stirring.

7. Claims 6 and 16, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-184357 in view of Knobel 5482863 as applied to claims 1, 11 respectively above, and further in view of Makino et al 5555767 (all previously cited).

JP 62-184357 in view of Knobel 5482863 discloses all of the recited subject matter as defined within the scope of the claims with the exception of using a container with an inclined wall of the structural type recited in the claims.

The Makino et al reference shows examples which a pipette may be used to mix liquid in a container which may have vertical walls figure 2 or alternately with walls with an incline as see in figure 3 or 5, column 5, lines 26-32. Accordingly, absent any unexpected results, it is deemed that it would have been obvious to one of ordinary skill in the art to substitute for the type of container of the type used by JP '357 with a commonly known functional equivalent container which may hold materials for a pipette, such as the type of container having walls at an incline as shown by Makino et al so that liquid dispensed by the pipette may more easily flow down from the sidewalls for good stirring performance.

Response to Arguments

8. Applicant's arguments filed 3-21-2006 have been fully considered but they are not persuasive.

9. Applicant argues with regards to the combination of the teachings of JP '357 with Knobel '863. In the following arguments:

Applicants respond as follows.

As previously noted, Claims 1 and 11 are amended to recite "a discharging position above the surface of the liquid remaining in the container and which is horizontally different from a sucking position where the liquid has been sucked to thereby stir the liquid".

Claims 18 and 20 are canceled, making the rejection of these claims moot.

Applicants submit that the amended independent Claims 1 and 11 are not rendered obvious by the cited references and combinations thereof.

For example, regarding the obviousness rejection of independent Claim 1 over the combination of JP '357 with Knobel, Applicants submit that the present invention achieves unexpectedly superior results of stirring liquids when suction and discharge are controlled automatically at horizontally different positions. Applicants point to the test results of the Rule 132 Declaration previously submitted on December 24, 2003.

10. In response to the argument that the combination of the JP'357 in view of the Knobel '863 reference, evidence of motivation to combine and the particular step of moving the pipette to a discharging position above the surface of the liquid remaining in the container and which is horizontally different from a suction position where the liquid has been sucked to thereby stir the liquid as been addressed and discussed in detail above in section 5 of this office Action.

11. Applicant has not provided convincing arguments that the JP'357 in view of the Knobel '863 reference are not a prima fascia obvious over the instant claims.

12. Applicant argues unexpected results by the use of blood. In the following arguments:

For example, regarding the obviousness rejection of independent Claim 1 over the combination of JP '357 with Knobel, Applicants submit that the present invention achieves unexpectedly superior results of stirring liquids when suction and discharge are controlled automatically at horizontally different positions. Applicants point to the test results of the Rule 132 Declaration previously submitted on December 24, 2003.

The Rule 132 Declaration displays unexpectedly superior results (see the data in Table 2, including details on the reference liquid). The experimentation discharged the blood at positions above the surface of the liquid remaining in the container (see Conditions A and D), but not at a position below the surface of the liquid. As clearly shown in the experimental results described

in the Rule 132 Declaration, discharging the liquid above the surface of the liquid is effective for stirring the liquid, in comparison with discharging the liquid below the surface of the liquid (in the case that the discharging position is in the liquid).

Whole blood was employed in the experimentation in the Rule 132 Declaration since blood is useful for determining the stirring ability due to its high solid content, its color and its high viscosity in comparison with that of water. The whole blood is completely stirred by using a touch mixer in the experimentation which provides for the mixed blood to be mixed extremely uniformly. Since stirring blood is really difficult, if it is possible to stir blood, it is usually possible to stir other liquids as well.

13. In response remarks to the Rule 132 Declaration filed Dec 24, 2003, the experimental results are directed to the processing to blood in particular. The claimed invention is a method of processing (i.e. stirring) liquid. Such parameter and discussion

to blood in particular is immaterial to the processing steps since the instant claims for examination is not directed to a method of processing blood. Furthermore, the declaration does not provide sufficient evidence that an alleged effectiveness in processing blood in particular would render the combination of JP'357 in view of the Knobel '863 reference as being unobvious in combination to produce and added stirring effect..

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following disclose pipette devices which may repeatedly provide suction and dispensing and may be moved: Miyake et al 5174162, JP 09-297125, JP 09-171024, and JP01-212356, and JP 03-170046. Tanaka 5820824 is of the same family of JP 09 171024 or JP 2002-126985.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7-5PM,Tue-Fri.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tony G Soohoo

Primary Examiner

Art Unit 1723

TONY G. SOOHOO
PRIMARY EXAMINER